Ideation Phase: Define the Problem Statements

Project Name: Sustainable Smart City Assistant

Date: 25 June 2025

Team ID: LTVIP2025TMID37298

Maximum Marks: 4 Marks

# Problem Statement 1: Lack of Real-Time Civic Insights

Description:  
Urban citizens lack access to real-time information on key environmental metrics like air quality, water usage, and noise levels. This makes it difficult for them to understand the state of their surroundings and engage in responsible behaviors.  
  
Need:  
An interactive assistant that visualizes up-to-date environmental KPIs in a user-friendly format.

# Problem Statement 2: Inaccessibility of Policy Information

Description:  
Smart city policies are often written in complex legal or bureaucratic language, which makes it difficult for the general public to understand their impact or relevance.  
  
Need:  
A solution that simplifies, summarizes, and explains policies in plain language using AI (Granite LLM), empowering citizens to stay informed and compliant.

# Problem Statement 3: Lack of Public Feedback Channels

Description:  
There is no unified or streamlined system for citizens to report issues, submit suggestions, or track responses related to smart city services.  
  
Need:  
A feedback system integrated within the assistant that allows residents to raise concerns and offer insights that city officials can track and act upon.

# Problem Statement 4: Urban Sustainability Awareness Gap

Description:  
Many citizens are unaware of how their daily habits affect sustainability metrics like energy usage, waste generation, or water conservation.  
  
Need:  
A recommendation engine that offers eco-friendly lifestyle tips personalized to the user’s location, season, and city metrics.

# Problem Statement 5: Fragmented Urban Data Sources

Description:  
Data about the city (air, water, waste, traffic, etc.) is scattered across departments and difficult to access or correlate.  
  
Need:  
A unified platform that aggregates and analyzes data from multiple sources (via APIs or datasets) and presents it through a single assistant interface.